

# ASTORIA BRIDGE



## Dedication Program





## DEDICATION

*Communications breed economic growth.*

*With the dedication of this magnificent structure, the Astoria Bridge, the last major obstacle in a continuous vehicular route along the Pacific coast between Mexico on the south and Canada on the north has been eliminated.*

*This stretch of water where the Columbia River joins the Pacific Ocean has proved a formidable adversary to man's transportation progress in this area for countless ages.*

*It is on the auspicious occasion of the dedication of the Astoria Bridge that we pay humble homage to all who have labored in any way to make this dream of a structural bridging of this mighty river here come true.*

*August 27, 1966.*





**MARK O. HATFIELD**  
Governor of Oregon



All Oregon and indeed all the West has reason to rejoice as we pause to dedicate this tremendous structure we call the Astoria Bridge. It is the last major link in easy vehicular travel on Highway US 101 along the Pacific Coast from Mexico to Canada.

The addition of this man-made wonder to our Northwest Coast removes the last obstacle to the free flow of tourism, trade and commerce between our states. It is in itself sufficient stimulus to draw tourists to Oregon. And certainly it will do much to enhance the personal as well as commercial concerns of those who make their homes on the Oregon coast.

The construction of the bridge was a tremendous undertaking. In a way, it characterizes the new era of greatness—of social and economic growth, to which Oregon has dedicated itself in its second century of statehood. So it stands as much a symbol of our progress as well as a source of pride to us all.

A handwritten signature in dark ink, appearing to read "Mark O. Hatfield".

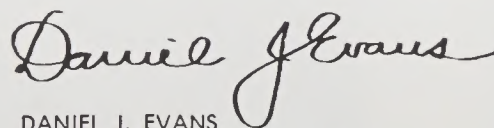
MARK O. HATFIELD  
GOVERNOR OF OREGON



## SYMBOL OF PROGRESS

It is particularly significant for me to join with you today in congratulating the engineers and the builders and the people of Oregon on the completion of this fine structure. Not only as the governor of your neighboring State of Washington, but also as a professional engineer, I stand with pride and admire this excellent engineering achievement. This span stands as a symbol of men with vision who dreamed and worked to develop this new bridge between our two states.

Undoubtedly, this structure will serve as a magnet for tourists and residents alike. There will be an increase of commerce between the communities on both sides of the Columbia River. Already I have been told of real estate developments in which nearly a thousand separate parcels of land were placed on the market one day and exactly one month later, only seven parcels were left unsold. We expect that on our side of the river, Pacific and Grays Harbor Counties will see an increase in payrolls of approximately \$1,000,000 a year. Capital investments in new and expanded businesses are expected to total about \$12,500,000 and property values to increase by more than \$4,000,000. This entire area of the Columbia, on both sides of the river, has been somewhat removed from the economic expansion which has been enjoyed by both of our states in recent years. This bridge will tie together the Pacific Coast Highway giving each of our states a vital route which will generate a new thrust of expansion for this very deserving area. This is indeed a proud day for Washington and Oregon.



DANIEL J. EVANS  
GOVERNOR OF WASHINGTON



**DANIEL J. EVANS**  
Governor of Washington



# OREGON STATE HIGHWAY COMMISSION



GLENN L. JACKSON  
Chairman



KENNETH N. FRIDLEY  
Member



DAVID B. SIMPSON  
Member



FORREST COOPER  
State Highway Engineer



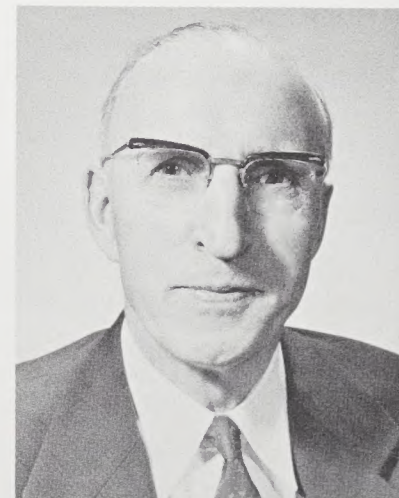
# WASHINGTON STATE HIGHWAY COMMISSION



CHARLES G. PRAHL  
Director of Highways



ELMER C. HUNTLEY  
Chairman



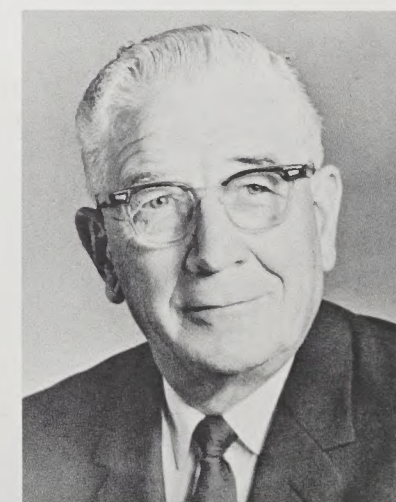
GEORGE D. ZAHN  
Member



ROBERT L. MIKALSON  
Member



HAROLD WALSH  
Member



JAMES M. BLAIR, SR.  
Member



## THE BRIDGE

A bridge linking Oregon and Washington across the mouth of the Columbia River has been under consideration for many years. Through the years as automobile traffic increased, the need became ever more imperative. In 1953, through the cooperative efforts of the Oregon State Highway Department, the Washington Toll Bridge Authority, Pacific County in Washington and the Port of Astoria, a fund of \$50,000 was established to conduct a feasibility study. In 1957, the Legislatures of Oregon and Washington each appropriated \$100,000 for preparing complete and final plans for the bridge.

Governor Mark O. Hatfield signed into law on April 27, 1961, House Bill No. 1457 (Chapter 345, Oregon Laws 1961) authorizing the sale of \$24,000,000 in bonds and providing for construction of the bridge, the imposition and collection of tolls for use of the bridge, and authorizing any other necessary action in connection with the construction, maintenance and operation of the bridge. Washington enacted Chapter 209, Washington State Session Laws of 1961, authorizing that state's participation in the project. On September 15, 1961, the Oregon and Washington State Highway Commissions entered into an agreement to construct the bridge. A supplemental agreement between the two states, signed on May 25, 1962, provided for the acceptance of token Federal funds in connection with the project.

The bridge has been built at a cost of more than \$24 million dollars and stretches 4.1 miles from Astoria, Oregon to Point Ellice, near Megler, Washington. It is believed to have the longest continuous through truss series in the world. The main ship channel span of the bridge is 1,232 feet, which with the 616-foot end spans combines into a continuous truss 2,464 feet in length. It closes the last major water gap in vehicular travel

along the Pacific coast from Mexico on the south to Canada on the north.

Approaching the Astoria Bridge from the south, a new section of US 101 begins at a toll station just off Astoria's Marine Drive and curves counter-clockwise through a full 360 degrees as the Astoria approach rises to the ship channel. It next makes a long leap high across the main ship channel near the south river bank. It then descends to 25 feet above sea level for more than 10,000 feet across the sometimes dry Desdemona Sands. It then climbs briefly to provide for 49 feet of vertical clearance over the north ship channel before descending again in a Washington shore approach.

Crossing the main ship channel, the lowest steel member of the center span is nearly 200 feet above mean low water as it stretches between the two steel towers supporting the center span of the three span continuous through truss thus providing clearance enough to float the U. S. Navy's biggest battleship under the bridge at high tide. The towers are mounted on concrete piers protected by timber piling fenders, leaving a ship channel 1,070 feet wide.

As the 11,200-foot viaduct approaches the seldom used north ship channel, the span length increases to 150 feet and steel plate girders on concrete piers again raise the roadbed. Here, seven 351-foot steel through truss spans cross the channel, providing clearance of 49 feet in height and 335 feet in width at mean low water under the center span. At this location the concrete piers are the deepest, extending to 85 feet below mean sea level. Piles which support the pier extend another 51 feet below the bottom of the pier to a total of 136 feet below mean sea level. A 150-foot steel girder span carries the roadway down to the Washington approach.

The deck contains two 14-foot lanes, with an additional





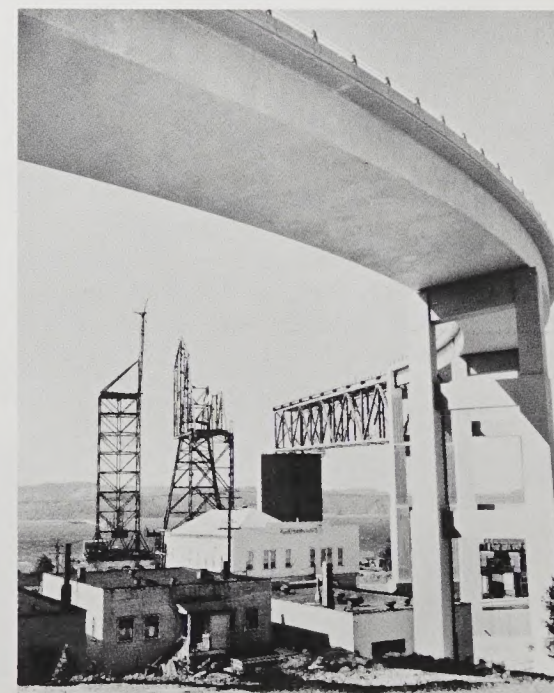
Ground Breaking Ceremony, August 9, 1962  
Governor Hatfield flanked by State Representative  
William H. Holmstrom and State Senator Daniel A. Thiel



Land Piers on Oregon Side



Pier and Approach Construction



405-foot high  
derrick on barge



one and one-half foot safety curb and handrail on each side providing a safety walkway for pedestrians in the event of emergencies.

The bridge is designed to withstand some of the most severe attacks of nature. Gusts of winds of 150 miles per hour from the fierce Pacific storms that occasionally batter the coast still leave the bridge with an adequate safety factor. The concrete piers are built with an eye toward the river flood speed of 9 miles per hour when whole trees are some times swept along by the rushing water.

On August 9, 1962, Oregon's Governor Mark O. Hatfield, turned the first shovelful of dirt on the river bank in Astoria with a gold shovel to signal the official start of the project.

Among some of the interesting facts concerning the construction of the Astoria Bridge are the following: 48,500 cubic yards of structural excavation; 158,785 linear feet of steel piling; 134,090 linear feet of timber piling; 76,496 linear feet of 14-inch prestressed concrete piling; 38,772 linear feet of 48-inch round prestressed concrete piling; 97,995 cubic yards of concrete; 6,005 tons of metal reinforcing; 12,500 tons of structural steel; 25,290 linear feet of aluminum parapet rail; and 440,000 board feet of treated lumber.

The toll booths are located on the Oregon side of the bridge with travelers in either direction paying their fees here. Also located in the toll plaza complex is an Administration Building which will house, among other things, a Travel Information Center. This center will provide travelers with the most recent information concerning their itinerary in the State. It will have a large relief map of Oregon and attendants will provide tourists with maps and brochures of places to visit. Also located in the building will be State Police and Highway Department Maintenance personnel.



Last of concrete goes into parapet wall





Completed Structure  
with toll facility and  
Administration Building



## ASTORIA

Not only is Astoria the site of the first permanent settlement in the Oregon Country but it was on the strength of the settlement that the United States was able to solidify its claim to the entire Pacific Northwest.

Chinookan-speaking Indians held both sides of the Columbia River. The Chinooks were masters of boat design and navigation. Ranging from the one-woman shovel-nose craft to the high-prowed, raked-stern whaling and war canoes capable of carrying 50 warriors, each vessel was designed for a specific purpose. The Chinooks were perhaps the shrewdest of native business men. They controlled the mouth of a great water highway and by extensive trading became wealthy by the standards of their day.

History is replete with stories of adventurers who were washed ashore along the Oregon coast but to Captain Robert Gray, a fur trader out of Boston, is given credit for the discovery of the legendary "River of the West." On May 11, 1792, Gray and his crew sailed their little ship, the Columbia, after which he named the river, over and around the sand bars blocking the river entrance. He took possession of the river and its entire drainage system, a common practice in those days, in the name of the United States. This was the first legitimate claim to the Oregon Country.

Only 5 months later an English naval officer, Lieutenant William R. Broughton, under the command of Captain George Vancouver, explored the river for nearly 100 miles inland and claimed the region for Great Britain. He based his claim on the premise that "the subjects of no other civilized nation or state had ever entered this river before." Thus were sown the grains of a dispute that lasted for years.

Thomas Jefferson, a visionary, while president dreamed of a United States that stretched from coast to coast. With a weak

fledgling nation, he realized something concrete would have to be done to secure this vast western territory for the country. With this in mind, he commissioned a Corps of Discovery, better known as the Lewis and Clark Expedition, to make an overland trip to the Oregon Country as the entire Northwest was called.

The party arrived on the Pacific Coast in late 1805 and with winter coming on felt the establishment of a winter camp was imminent. After much discussion, it was decided to settle on the south bank of the river where the Indians told them chances of survival were better. They passed the future site of the city of Astoria and built Fort Clatsop, the first building erected by white men in the Northwest and also the first military establishment.

On March 22, 1811, the bark Tonquin, the ship sent out by John Jacob Astor to found a trading post, made landfall at the Columbia. After bitter controversy and as a compromise, members of the Pacific Fur Company, Astor's company, selected the south shore site on April 5. They named it Astoria after their employer. The party started immediately to expand their trade and to forestall the threat of English expansion into the area from Canada. An overland party joined the group the following year and efforts were advanced to claim supremacy in the area and to establish a trade agreement with the Russians in Alaska.

A series of disasters and the War of 1812, which the Astorians learned of in 1813, led to the sale of the post to the North West Company, a British concern operating in Canada. Despite desperate efforts to save the post for the United States, Astor refused to pour any more men, money or equipment into the venture. With the threat of British warships sailing to seize the post, it was voted to sell it to the British in





Fort George, or Astoria, Columbia River—  
site of the Hudson's Bay Company's Establishment



November 1813 and recoup some of the financial losses. It is believed Astor lost approximately \$400,000 in the venture. It was years later, following threats of another war, before United States' claims to the area were reaffirmed.

By 1841 all traces of the original fort were gone except for minor buildings and the importance of Astoria as a trading post had long since vanished. During the period 1844-45, the first overland settlers arrived and ships began to appear in increasing numbers. In March 1847, the Astoria post office was opened, the first west of the Rockies. By 1850 the town had established itself as the trading center of the lower Columbia country and its population had grown to 250. The first federal building west of the Rockies was built to house the customs office in 1852. The salmon-canning industry, which became Astoria's chief asset, got its start when the first cannery was built in 1866.

Astoria was on its way and by the 1880's had a population of 2,803 but in 1883, fire, which has continually plagued the city through its history, virtually wiped out the waterfront. In those days the city had wooden streets built on pilings over the water which served as ducts for the flames. The fire swept eastward destroying all the buildings in its path after starting in a sawmill. The ravaged city was rapidly rebuilt following the fire.

In 1920 with its population of 14,027, it ranked as Oregon's second city. In December 1922, a devastating fire again broke out along the waterfront. Again this portion of the city was built on wooden streets and pilings which acted as ducts. Before the fire was extinguished the following afternoon, 32 city blocks had been reduced to ashes and the entire business district was gone.

Again the citizens launched a rebuilding program, this time

making the city fireproof. In a short time the waterfront was completely rebuilt. With its strategic location, Astoria became a center of World War II activity. During the intervening years, the fishing industry has enjoyed new growth and is still a major industry. Lumbering, dairying, and general agriculture, flourishing in the fertile valleys, are all important to the city.

Today, Astoria has a population of 10,500 and with the opening of this new avenue of trade provided by the bridge, a resurgence of vitality and growth is expected.



After the fire of December, 1922





Main ship channel span with Astoria in background.  
Summer of 1966



ASTORIA, ORE. AFTER THE FIRE OF DEC. 8-1922

© FRANK WOODFIELD  
PHOTO



## HISTORY OF THE FERRIES

The legendary "River of the West," as the Columbia was called by the early explorers, has long defied man. Many of these early explorers passed up the opportunity to sail up this mighty river and claim a vast wonderland for their mother country because of the shifting sands and mighty tides at the mouth of the river.

It remained for an American sea captain, Robert Gray of Boston, to verify the existence of this body of water. He first visited the area in 1788 but in May, 1792, he returned and entered the river, naming it after his ship, Columbia. When the expedition of Lewis and Clark reached the area of Astoria in the winter of 1805, the north-south crossing of the river posed a problem. Their unwieldy craft were often swamped and capsized. They were forced to travel several miles upriver to make the crossing safely. They noticed the Indians employed a specially designed canoe to negotiate the trip.

Stories tell of an enterprising individual who lashed two canoes together and placed a platform over them to establish an early ferry in the 1840s. The stories also relate that the crossings were not always successful. Intermittent attempts were made to start a regular ferry service but it was not until 1921 when the automobile began to be a little more than something to scare the horses with that anyone took a serious venture in this field of scheduled ferry service. His friends called him a "crazy Swede" because he was willing to gamble his life's savings on the chance there were enough people wanting to cross the Columbia River at Astoria to make the venture worthwhile, but Captain S. F. "Fritz" Elfving had confidence in the future.

His service began with the Tourist 1 and ran between Astoria, Oregon and McGowan, Washington. Within a decade as automobile traffic increased, the service proved profitable

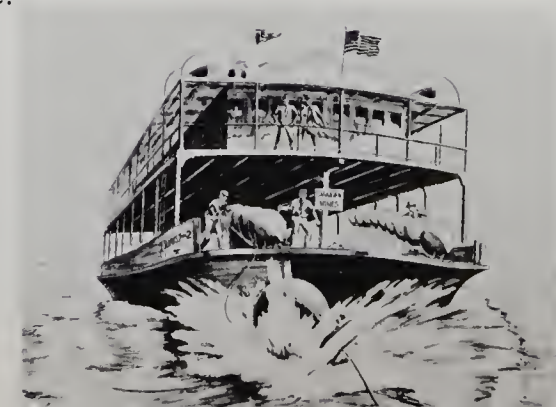
enough for Captain Elfving to purchase two more ferries, naming them appropriately Tourist 2 and Tourist 3.

Competition in those days wasn't as refined as it is today and everything short of warfare, and many times it even approached that, was fair. He overrode all opposition, either buying them out or running them out of business. Following the "ferry war" of the '30s, events were fairly quiet along the river front until a real war broke out in 1941. Hardly had news been received that war had been declared when a detachment of soldiers from nearby Fort Stevens deployed on the dock and commandeered the Tourist 2 for the duration of hostilities.

The vessel was moved to a shipyard and converted to a minelayer. She performed yeoman duty laying and tending the mine fields at the mouth of the Columbia River. For her outstanding service, the U. S. Army awarded her an "E" pennant—the only ship of her type so honored.

In 1946, the Oregon State Highway Commission purchased the ferries and facilities of the Astoria North Beach Company. Following the war and the resulting lifting of gasoline restrictions, Americans were eager to travel and traffic at the ferry site constantly increased. In many instances, cars were backed up waiting long periods of time for a ferry. The Highway Commission approved plans for an addition to the fleet and the "M.R. Chessman" joined the "highway navy" in April 1948. Anticipating increased travel for the Seattle World Fair, the Commission approved the purchase of the Kitsap in 1958.

Even with this added help, long lines of waiting traffic at both terminals of the ferry, in Astoria and at Megler, Washington, where the site had been moved from McGowan, attested to the need of improved transportation. So the automobile which created a need for the ferry system led to its demise—a victim of progress that won't be forgotten for years to come.



Tourist 2 served in her country's military forces as a minelayer in World War II



Flagship of the "Highway Navy," the M. R. Chessman



Increased automobile traffic forced Captain Elfving to enlarge his fleet with Tourist 2 and 3 in the 1930s



A participant in the famous "Ferry War" was the North Beach



The Tourist 2 in recent years



## REGATTA

Transplanted Britishers, whose history is rooted in Astoria and whose flag once flew over the settlement, are credited with conducting the first regatta on the Columbia River along Astoria's waterfront. It was in 1894 that the Astoria Football Club decided to capitalize on the area's river and maritime facilities and conduct a water carnival.

Frank Gunn, an Australian, had participated in "regattas" in "the land down under" and was named chairman of the committee for the planned program of water sports and contests. In the "Gay Nineties," the main attractions included greased pole races, swimming and diving exhibitions, and boat races of every imaginable variety.

The celebration became an immediate success and drew participants and spectators from all over the Northwest. As the success grew, the events became more ambitious and varied. It became traditional to select a Queen of the Regatta and to appoint an Admiral. Along with the Admiral came an Admiral's Aide and various citizens were commissioned as honorable officers.

In 1915, in the early days of World War I, the four-masted bark, "Kurt," a German sailing vessel, was confined to the Port of Astoria and that year the grand stand for reviewing regatta events was erected on her decks.

In 1922, the Salmon Derby was added to the list of events and soon became a major attraction. Thousands of eager sportsmen flocked to the scene to catch the biggest fish for which a prize of as much as \$1,000 was offered.

The Regatta took time out for two wars but was revived in 1951. The Salmon Derby has disappeared from the list of events but the rest of the events have returned as an annual attraction.

The 46th Annual Regatta conducted this year will feature marathon boat races, a salmon barbecue, pro-football game,

and inboard motorboat races at Cullaby Lake. Dignitaries from Waldorf, Germany, Astoria's sister city, will be hosted at the various activities.



The gill net boat race was a feature of the early regattas



## ACROSS THE BRIDGE

On the Washington side of the Columbia River lies a land steeped in the development of the Northwest also. Little is told about Pacific County, Washington until the arrival of the Lewis and Clark Expedition in the area in November, 1805 but it is known that Captain Robert Gray did visit the area on his famous voyage of 1792. It is this voyage on which the claim of the United States to the vast Pacific Northwest was based. Not far from Chinook is a weather-stained wooden tablet and flagpole which mark the site of the landing of Captain Gray.

A village famed in the development of this area but which has long since lost its battle to progress and time is Chinookville. It was here that Lewis and Clark and their party tarried for 10 days on their trip to the sea. While here they explored much of the surrounding territory and did a great deal of hunting but found that game was not plentiful in the area.

Before leaving for Fort Clatsop across the river where they had decided to make their winter camp the party prepared a great feast which might well be called the first Thanksgiving feast in the Northwest. They did not have turkeys to serve but there were plenty of cranberries which grew wild in the bogs near Long Beach. In place of turkeys they served wild geese, ducks and deer.

Chinookville was probably the first settlement in Pacific County. Long before the white man arrived it was a thriving Indian village. It was located between McGowan and Point Ellice but has long since disappeared. It was replaced by Chinook, a weathered fishing village, which at one time boasted the highest per capita wealth of any settlement its size in the country. A fish conservation act outlawing the use of fixed gear in Washington waters nearly bankrupt the town.

The early fur traders at Astoria fought a losing battle with

their British rivals across the river with the American company selling out to the British in 1813. In 1824, the Hudson's Bay Company decided to move its western headquarters from Fort George, at the mouth of the Columbia River, to a site about 100 miles upstream. The new post was named Fort Vancouver, in honor of Captain George Vancouver, the explorer. The shift was made to strengthen British claims to the territory north of the Columbia and to be near lands more suitable for farming.

Fort Vancouver became the nerve center of a vast commercial empire represented by the Hudson's Bay Company which had a virtual monopoly of the fur trade in the Oregon Country. Its activities also marked the beginning of large-scale agriculture and industry in the Pacific Northwest.

Between 1824 and 1846, Fort Vancouver was commanded by Chief Factor John McLoughlin. Often called the "Father of Oregon," it was the kind treatment of this man which helped the pioneers to foster the growth of an American population in this area. When he retired, he moved to Oregon City and became a United States citizen. Following the treaty of 1846 between the United States and Great Britain, Fort Vancouver became part of the new country and the power of the Hudson's Bay Company began to decline.

Cape Disappointment stands on the tall headland named by Captain John Meares who rounded the cape in 1788 while on a trading voyage. He failed to realize that he was at the mouth of a great river and consequently named the cape in "disappointment." The military built and occupied a fort here in 1864 naming it Fort Canby in 1875. The forest and the sea have provided the resources of the area for centuries. These resources are boundless and with the opening of the Astoria Bridge providing a new avenue to market it is believed the area will undergo a resurgence of prosperity.





The end of an era



---

## DEDICATION PROGRAM

(Ceremonies Begin at 2 p.m., August 27, 1966)

*National Anthem* (Astoria High School Band)

*Invocation* (Reverend H. Robert Grossman, Pastor of the Church of the Nazarene, President of the Astoria Ministerial Association)

*Opening Remarks* (Glenn L. Jackson, Chairman, Oregon State Highway Commission and Master of Ceremonies for the Dedication Events)

*Remarks* (Elmer C. Huntley, Chairman, Washington State Highway Commission)

*Address* (The Honorable Daniel J. Evans, Governor of Washington)

*Address* (The Honorable Mark O. Hatfield, Governor of Oregon)

*Official Opening of the Astoria Bridge* (Governor Daniel J. Evans, assisted by Miss Washington, Miss Sandra Lee Marth, and Governor Mark O. Hatfield, assisted by Miss Oregon, Miss Estrellita Shiel)

---



## CONTRACTORS ON ASTORIA BRIDGE PROJECT

Substructure	DELONG CORPORATION	New York, New York
Substructure	RAYMOND INTERNATIONAL, INC.	New York, New York
Superstructure	U. S. STEEL CORPORATION	Portland, Oregon
Desdemona Sands Viaduct	J. H. POMEROY & CO. AND BEN C. GERWICK, INC.	
Rip Rap Piers	UMPQUA RIVER NAVIGATION CO.	San Francisco, Calif.
(Astoria Appr.	PACIFIC CONCRETE CO.	Reedsport, Oregon
(Bldg. Dem.	D. A. LAVELLE CONSTRUCTION CO.	Portland, Oregon
(R. Imp.	ALL-CITY TREE & LANDSCAPE SERVICE	Portland, Oregon
Washington Approach	J. N. CONLEY, INC.	Portland, Oregon

### TOLL SCHEDULE

	<i>Toll</i>
Light Vehicle and Passengers	\$1.50
Light Vehicle with 1-Axle Trailer	2.00
Light Vehicle with 2-Axle Trailer	2.25
Truck or Bus, 2-Axle	3.00
Truck or Bus, 3-Axle	3.75
Truck Combination, 4-Axle	4.50
Truck Combination, 5-Axle	5.25
Truck Combination, 6-Axle	6.00
Motorcycles	1.00







